**PATENT** 

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## **ABSTRACT**

Embodiments of the invention provide a method for determining errors and metrics in a computer network. The method includes positioning an analyzer in communication with the network, capturing a data trace of the network with the analyzer, determining a network device topology from a first processing of the data trace, building user layer protocols using a second processing of the data trace and the determined device topology, determining errors in the network device topology using protocol experts applied to the user layer protocols in conjunction with the determined device topology, and displaying at least one of the device topology and the determined errors to a user.

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